49

Abstract

The invention relates to a process for preparing a supported catalyst, in particular for the polymerization and/or copolymerization of olefins, which comprises:

5   a)   preparing a hydrogel;

    b)   milling the hydrogel to give a finely particulate hydrogel;

    c)   producing a slurry based on the finely particulate hydrogel;

    d)   drying the slurry comprising the finely particulate hydrogel to give the support for catalysts;

10   e)   producing the supported catalyst by applying at least one transition metal and/or at least one transition metal compound to the support for catalysts and, if appropriate, activating the applied metal and/or compound,

wherein a finely particulate hydrogel in which

-      at least 5% by volume of the particles, based on the total volume of the
15   particles, have a particle size in the range from > 0 μm to ≤ 3 μm; and/or

-      at least 40% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0 μm to ≤ 12 μm, and/or

-      at least 75% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0 μm to ≤ 35 μm,

20 is produced in step b) and a support which can be prepared as set forth in steps a) to d) is used to produce catalysts in step e).